

## Abstract

In a switched-current power converter, a plurality of constant current sources provide equal currents to a plurality of switch pairs that may direct the several currents either to the return or to the output capacitors and the load. In another embodiment of the invention, internal switches may short circuit the several current sources and a plurality of switches may switch the several currents to the output capacitor and the load when the internal switches are not short circuits. A voltage control circuit is shown in which a resistor ladder network is the references for a number of comparators which directly control the plurality of switches. An alternative voltage control circuit uses two comparators and an up-down counter to control the switches.